

ITEM 3.18

**MEETING DATE:** 06/10/2019

**Prepared by: Eduardo Belmarez, Purchasing Director**

**Attachments:** Yes   X   No

**Chapter 302. Energy Savings Performance Contracts for Local Governments, Section 302.005(b)**  
**“Before entering into an energy savings performance contract, the governing body must require that the energy savings, increase in billable revenues, or increase in meter accuracy estimated or projected by provider be reviewed by a licensed professional engineer”.**

**Budgeted:**     Yes         No         N/A     **Fund:**                      **Acct. No.:**                     

**Budget:** \_\_\_\_\_ **Est. Cost:** \_\_\_\_\_ **Budget Balance:** \_\_\_\_\_

**Staff Recommendation:** Seeking direction from council

ROUTING: Name/Title	Initial	Date	Concurrence
A. Angie Vela, Finance Director	amw	6/7/19	Yes
B. _____			
C. _____			

**Advisory Board Recommendation:**      Approved      Disapproved   X   None      Pending

**City Manager's Recommendation:**     Approved         Disapproved         None         Pending    

\*\*\*\*\*

APPROVED: \_\_\_\_\_  
DISAPPROVED: \_\_\_\_\_  
TABLED: \_\_\_\_\_

\_\_\_\_\_AYES  
 \_\_\_\_\_NAYS  
 \_\_\_\_\_DISSENTING

Spoke Council Director



# Performance Services


## City of Mission- Investment Grade Audit



**MISSION**



# Scope of Work

- 
1. New Residential and Commercial Water Meters
  2. Advanced Metering Infrastructure (AMI)
  3. LED lighting
  4. Power Conditioning
  5. Smart-Stats
  6. Solar PV
  7. HVAC
  8. Retro-Commissioning
  9. Landscaping



# Amortization Schedule



City of Mission ESPC Project

Total Construction Cost												\$ 17,655,614
Investment Grade Audit												\$ 49,200
Owner's Representative												\$ 300,000
3rd Party Review												\$ 7,500
Construction Period (Months)												13.0
Construction Interest (Capitalized) - Optional												\$ -
Utility Rebate (Not Guaranteed - Included in Column 5)												\$ -
Total Construction amount including incidental expenses												\$ 17,963,114
Term of Financing: 15 years												
<b>TOTAL AMOUNT FINANCED USING</b>												<b>\$ 17,963,114</b>
<b>Savings</b>							<b>Payments</b>					
Year	Additional Water Revenue	Energy Savings	80% of Water Department O&M Savings plus Up Material Savings	Estimated Rebate	Capital Cost Avoidance	Total	Annual Debt Service	Annual Service Cost	Annual Maintenance Cost	MSV Services	Total Annual Payments	Net Cash Flow \$
1	2	3	4	5	6	7	8	9	10	11	12	13
Construction	\$301,431	\$47,743		\$60,000		\$409,234	\$0	\$0	\$0	\$0	\$0	\$409,234
1	\$1,205,964	\$130,973	\$343,244		\$470,347	\$2,210,528	\$0	\$54,084	\$0	\$0	\$54,084	\$2,116,444
2	\$1,232,496	\$136,175	\$350,795		\$480,654	\$2,259,180	\$1,565,354	\$56,907	\$0	\$15,000	\$1,707,261	\$551,900
3	\$1,259,611	\$139,458	\$358,513		\$491,271	\$2,308,862	\$1,565,354	\$59,814	\$0	\$15,300	\$1,710,467	\$598,394
4	\$1,287,322	\$203,657	\$366,400		\$502,077	\$2,359,656	\$1,565,354	\$102,808	\$0	\$15,606	\$1,713,768	\$645,889
5	\$1,315,643	\$208,342	\$374,461		\$513,123	\$2,411,569	\$1,565,354	\$105,892	\$0	\$15,916	\$1,717,164	\$694,405
6	\$1,344,587	\$212,925	\$382,689		\$524,412	\$2,464,623	\$1,565,354	\$109,069	\$0	\$16,236	\$1,720,659	\$743,964
7	\$1,374,168	\$217,609	\$391,119		\$535,945	\$2,518,845	\$1,565,354	\$112,341	\$0	\$16,561	\$1,724,256	\$794,589
8	\$1,404,409	\$222,367	\$399,723		\$547,743	\$2,574,263	\$1,565,354	\$115,711	\$0	\$16,892	\$1,727,958	\$846,302
9	\$1,435,297	\$227,290	\$408,517		\$559,796	\$2,630,893	\$1,565,354	\$119,183	\$0	\$17,230	\$1,731,767	\$899,127
10	\$1,466,873	\$232,290	\$417,505		\$572,126	\$2,688,773	\$1,565,354	\$122,758	\$0	\$17,575	\$1,735,687	\$953,086
11	\$1,499,144	\$237,430	\$381,690		\$584,692	\$2,702,926	\$1,565,354	\$126,441	\$0	\$17,925	\$1,739,721	\$963,205
12	\$1,532,125	\$242,623	\$390,087		\$597,555	\$2,752,390	\$1,565,354	\$130,234	\$0	\$18,280	\$1,743,873	\$1,018,518
13	\$1,565,832	\$247,961	\$398,669		\$610,701	\$2,823,163	\$1,565,354	\$134,141	\$0	\$18,651	\$1,748,145	\$1,075,018
14	\$1,600,281	\$253,416	\$407,439		\$624,137	\$2,885,273	\$1,565,354	\$138,166	\$0	\$19,034	\$1,752,543	\$1,132,730
15	\$1,635,487	\$258,991	\$416,403		\$637,866	\$2,948,745	\$1,565,354	\$142,310	\$0	\$19,434	\$1,757,068	\$1,191,680
16	\$1,671,467	\$264,689	\$425,564		\$651,901	\$3,013,621	\$1,565,354	\$146,580	\$0	\$19,732	\$1,761,725	\$1,251,896
17	\$1,708,243	\$270,512	\$434,926		\$666,243	\$3,079,921	\$0		\$0		\$0	\$3,079,921
18	\$1,745,821	\$276,453	\$444,495		\$680,900	\$3,147,679	\$0		\$0		\$0	\$3,147,679
19	\$1,784,229	\$282,546	\$454,274		\$695,680	\$3,216,926	\$0		\$0		\$0	\$3,216,926
20	\$1,823,482	\$288,782	\$464,268		\$711,189	\$3,287,700	\$0		\$0		\$0	\$3,287,700
<b>Total</b>	<b>\$30,193,960</b>	<b>\$4,781,431</b>	<b>\$8,040,792</b>	<b>\$60,000</b>	<b>\$11,658,572</b>	<b>\$54,704,735</b>	<b>\$23,930,305</b>	<b>\$1,896,440</b>	<b>\$0</b>	<b>\$259,401</b>	<b>\$26,086,146</b>	<b>\$28,818,889</b>

# Amortization Schedule- Without Capital Avoidance Savings

City of Mission ESPC Project (Without Capital Cost Avoidance)												
Total Construction Cost												\$ 17,655,614
Investment Grade Asstl												\$ 49,200
Owner's Representative												\$ 300,000
3rd Party Review												\$ 7,500
Construction Period (Months)												130
Construction Interest (Capitalized) - Optional												\$ -
UTILITY Rebate (Not Guaranteed - Included in Column 5)												
Total Construction amount including incidental expenses												\$ 17,963,114
Term of Financing 15 years												
TOTAL AMOUNT FINANCED USING	INTEREST RATE: 3.0%											\$ 17,963,114
Savings							Payments					
Year	Additional Water Revenue	Energy Savings	80% of Water Department O&M Savings plus Lit Material Savings	Estimated Rebate	Capital Cost Avoidance	Total	Annual Debt Service	Annual Service Cost	Annual Maintenance Cost	M&V Services	Total Annual Payments	Net Cash Flow \$
1	2	3	4	5	6	7	8	9	10	11	12	13
Construction	\$301,491	\$47,743		\$60,000		\$409,234	\$0	\$0	\$0	\$0	\$0	\$409,234
1	\$1,205,964	\$190,973	\$343,244		\$0	\$1,740,182	\$0	\$94,084	\$0	\$0	\$94,084	\$1,645,098
2	\$1,232,496	\$195,175	\$350,795		\$0	\$1,778,466	\$1,595,354	\$96,907	\$0	\$15,000	\$1,707,261	\$71,205
3	\$1,259,611	\$199,468	\$358,513		\$0	\$1,817,592	\$1,595,354	\$99,814	\$0	\$15,300	\$1,710,467	\$107,125
4	\$1,287,322	\$203,857	\$366,430		\$0	\$1,857,579	\$1,595,354	\$102,868	\$0	\$15,606	\$1,713,768	\$143,811
5	\$1,315,643	\$208,342	\$374,461		\$0	\$1,898,446	\$1,595,354	\$105,992	\$0	\$15,918	\$1,717,154	\$181,282
6	\$1,344,587	\$212,925	\$382,699		\$0	\$1,940,212	\$1,595,354	\$109,069	\$0	\$16,236	\$1,720,659	\$219,552
7	\$1,374,158	\$217,609	\$391,115		\$0	\$1,982,896	\$1,595,354	\$112,341	\$0	\$16,561	\$1,724,256	\$258,640
8	\$1,404,430	\$222,397	\$399,723		\$0	\$2,026,520	\$1,595,354	\$115,711	\$0	\$16,892	\$1,727,958	\$298,562
9	\$1,435,297	\$227,290	\$408,517		\$0	\$2,071,103	\$1,595,354	\$119,183	\$0	\$17,230	\$1,731,767	\$339,337
10	\$1,466,873	\$232,290	\$417,505		\$0	\$2,116,668	\$1,595,354	\$122,758	\$0	\$17,575	\$1,735,687	\$380,981
11	\$1,499,144	\$237,400	\$426,690		\$0	\$2,162,234	\$1,595,354	\$126,441	\$0	\$17,926	\$1,739,721	\$423,513
12	\$1,532,125	\$242,623	\$436,067		\$0	\$2,208,815	\$1,595,354	\$130,234	\$0	\$18,285	\$1,743,873	\$467,940
13	\$1,565,832	\$247,961	\$445,656		\$0	\$2,256,449	\$1,595,354	\$134,141	\$0	\$18,651	\$1,748,146	\$514,303
14	\$1,600,281	\$253,416	\$455,439		\$0	\$2,305,136	\$1,595,354	\$138,166	\$0	\$19,024	\$1,752,543	\$562,593
15	\$1,635,487	\$258,991	\$465,433		\$0	\$2,354,911	\$1,595,354	\$142,319	\$0	\$19,404	\$1,757,068	\$612,843
16	\$1,671,457	\$264,689	\$475,564		\$0	\$2,361,720	\$1,595,354	\$146,580	\$0	\$19,792	\$1,761,726	\$664,994
17	\$1,708,245	\$270,512	\$485,926		\$0	\$2,413,678	\$0	\$0	\$0	\$0	\$0	\$2,413,678
18	\$1,745,821	\$276,483	\$496,495		\$0	\$2,466,779	\$0	\$0	\$0	\$0	\$0	\$2,466,779
19	\$1,784,229	\$282,546	\$507,274		\$0	\$2,521,048	\$0	\$0	\$0	\$0	\$0	\$2,521,048
20	\$1,823,482	\$288,762	\$518,258		\$0	\$2,576,511	\$0	\$0	\$0	\$0	\$0	\$2,576,511
<b>Total</b>	<b>\$30,193,960</b>	<b>\$4,781,431</b>	<b>\$8,010,792</b>	<b>\$60,000</b>	<b>\$0</b>	<b>\$43,046,183</b>	<b>\$23,930,305</b>	<b>\$1,896,440</b>	<b>\$0</b>	<b>\$250,401</b>	<b>\$26,086,146</b>	<b>\$16,960,037</b>

# Project Scope

Building	Utility Cost Reduction Measures						Cost Avoidance	
	Water Meters w/ AMI	LED Lighting	Power Conditioning	Smart Stats	Retro- Commissioning	Solar PV	New HVAC	Owner Directed Work
Water Meters	◆							
City Hall		◆	◆	◆				◆
Courts/Police Station		◆	◆	◆		◆		
Central Fire Station		◆		◆				
Event Center			◆		◆			
Adult Recreation Center		◆		◆			◆	
Speer Memorial Library		◆	◆	◆			◆	
Boys & Girls Club								
Sewer Plant		◆	◆	◆				
Museum #1		◆		◆				
Museum #2		◆		◆				
Public Works		◆		◆				
Water Plant (North)		◆	◆	◆				
Water Plant (South)		◆	◆	◆				
Bannworth Gym		◆		◆				
Bannworth Park		◆						
Bannworth Pool		◆		◆				
Mission Chamber of Commerce		◆		◆				
Sergio Munoz I Henry Cuellar		◆		◆				
Health Dept (Dog Pound)		◆						
Fire Station #2		◆		◆				
Fire Station #3		◆		◆				
Fire Station #4		◆		◆				
Fire Station #5		◆		◆				
Kika de la Garza Bldg. (UVAI)		◆		◆				
Golf Course Clubhouse		◆		◆				
Head Start		◆		◆				
Mission Community Center		◆		◆				
Mayberry Gym		◆		◆				
Mayberry Pool		◆						
North Side Pool		◆		◆				
Old Food Pantry		◆						
City Warehouse		◆		◆				
Police Substations		◆		◆				
Sanitation Department		◆		◆				
Service Center (Food Pantry)		◆		◆				
Strickland Bldg		◆						
Texas Citrus Fiesta Office		◆						
CDBG Building		◆						



# Project Scope & Savings

UCRM No.	UCRM Title	ANNUAL SAVINGS									Project Cost (\$)	Payback (yrs.)
		Electric Energy (kWh/yr)	Demand (kW/yr)	Electric (\$/yr)	Natural Gas (th/yr)	Natural Gas (\$/yr)	Water/Sewer (kgal/yr)	Water/Sewer (\$/yr)	O&M Savings	Annual Capital Cost Avoidance		
1	Water Meters w/ AMI						321,591	\$1,205,964	\$324,600	\$395,044	\$14,646,194	7.6
2	LED Lighting	1,667,695	3,220	\$104,070					\$18,644		\$1,205,564	9.8
3	Power Conditioning	426,420	1,462	\$49,865							\$445,505	8.9
4	Smart Stats	315,969	0	\$12,826							\$132,723	10.3
5	Retro-Commissioning	129,677	0	\$5,035							\$36,714	7.3
6	Solar PV	187,672	207	\$9,672							\$240,608	24.9
7	New HVAC	80,582	553	\$9,506						\$38,119	\$762,389	16.0
8	Owner Directed Work									\$37,184	\$185,918	5.0
Totals		2,808,013	5,441	\$190,973	0	\$0	321,591	\$1,205,964	\$343,244	\$470,347	\$17,655,614	8.0

# Guaranteed Energy Savings Performance Contracting

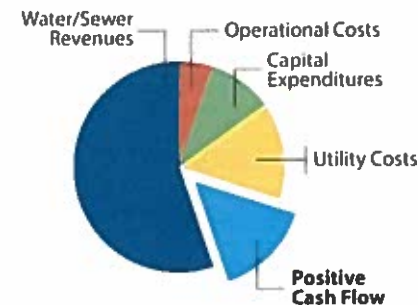
MISSION  
Before ESPC



MISSION  
During ESPC



MISSION  
After ESPC



- Savings/Revenues are **Guaranteed** = City of Mission is 100% protected
- Zero capital/money down required
- **Two (2) years of deferred (zero) payments**
- Tax Exempt Lease Purchase = Non-Appropriated Funds
- Accomplish addressing many city needs without tapping into general fund
- A project delivery mechanism that ensures success and has long-term contractor accountability
- Once again, Utility Savings/Revenues are **Guaranteed**.



# Guaranteed Energy Savings Performance Contracting



CITY OF  
**MISSION**

**Financial Guarantees**  
as per Texas Local Government Code 302.001



**Performance**  
Services

**Fixed Repayment Schedule**  
Includes- 2 Years of deferred payments

**Financial Institution**  
Tax Exempt Lease Purchase w/non-appropriation

# Guarantees & Protection for the City of Mission

- As per 302.001, the City of Mission is financially protected on an annual basis that the Smart City project savings will be equal to, or greater than the annual project costs.
- Zero change orders- Yes, we mean **ZERO** change orders.
- Zero capital/money down required
- As required by Local Government 302, an independent, and verifiably qualified 3<sup>rd</sup> party Texas licensed Professional Engineer needs to review scope of work and financial benefits to ensure that PSI project financial benefits will be obtained.

## Benefits to the City of Mission

1. The City of Mission knows that their project will deliver the financial results identified in the Investment Grade Audit.
2. The City of Mission knows that the project costs is the project costs and there will be no surprises with any change orders.
3. The City of Mission is 100% financially protected!

# City of Mission, a Smart City!

- A Smart Financial Solution
  - A Smart Operational Solution
  - A Smart Environmental Solution
  - A Smart Customer Service Solution
  - A Smart Sustainable Solution
- City of Mission, a Smart City!**

